Microsoft

Azure Developer Community Call

Applied Serverless Architectures - Ask me Anything
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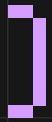
- What are good serverless architectures?
- Successful architecture patterns
- Operational responsibilities
- Scaling factors and guidelines
- Cost implications
- Containers and Serverless
- Platform engineering



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Who am i?

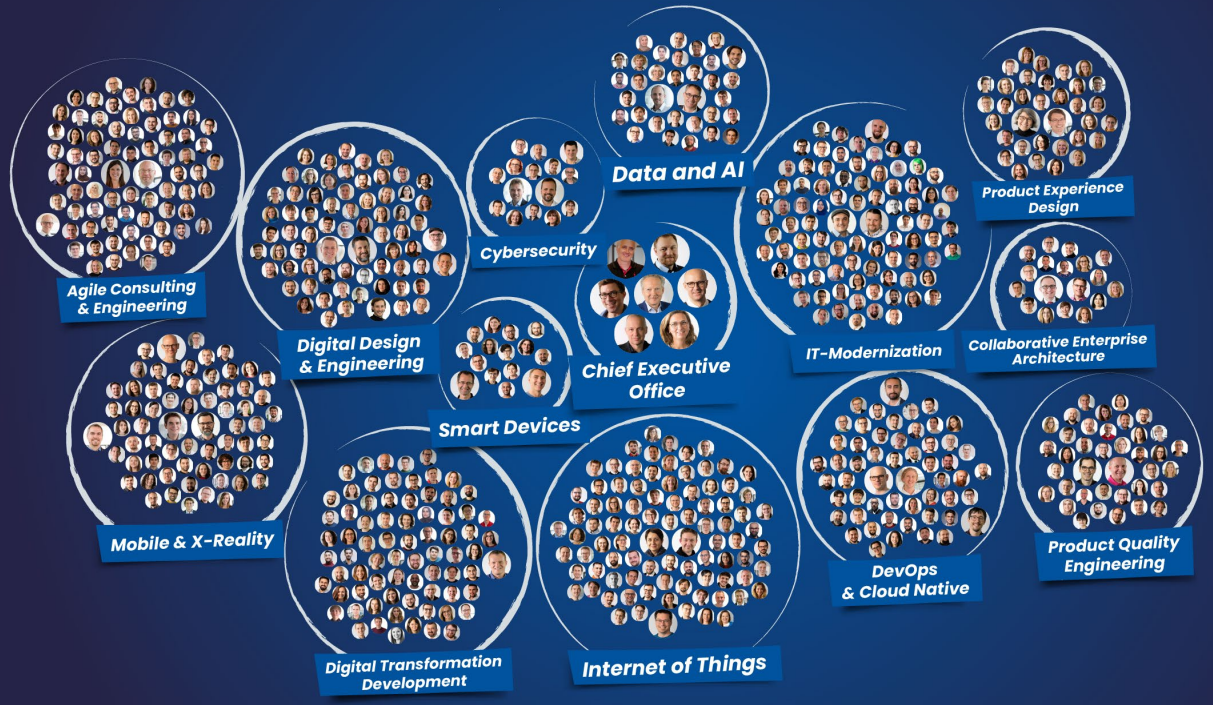
Christian Leinweber

- „Principal Architect“ @ MaibornWolff
- I live with my wife and my 3 kids near to Lüneburg
- I’m work at the Hamburg Office Location
- Me and my team build cloud-native applications
- We use serverless whereever it makes sense
- A lot of these projects focus on IoT systems

@christle_hh

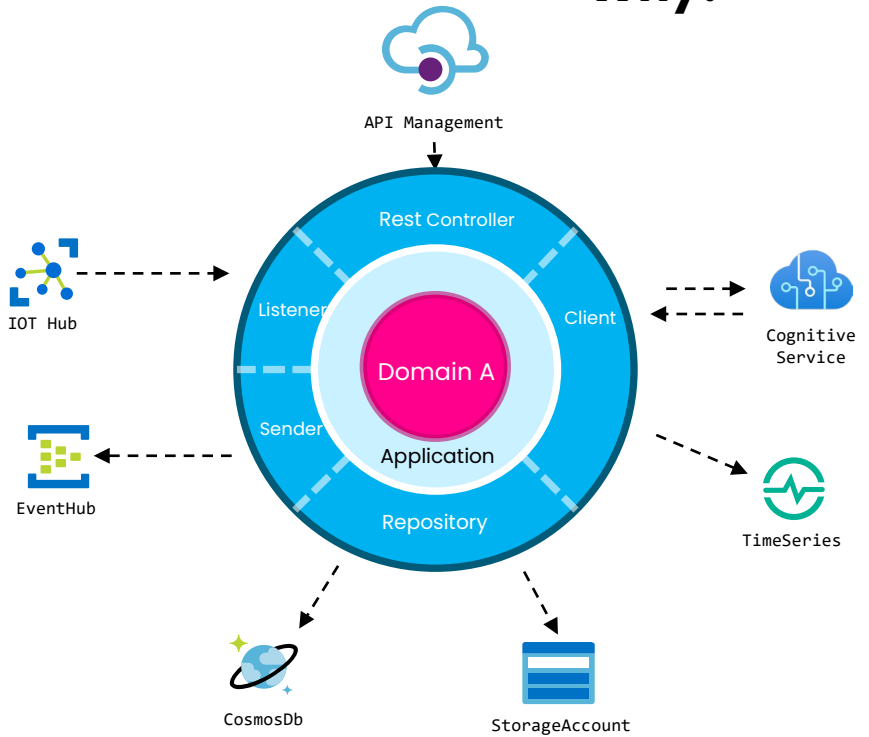
people. code. commitment.

- High investment in **Research & Development**
- More than 800 employees worldwide
- Locations: München, Augsburg, Darmstadt, Frankfurt, Berlin, Hamburg, Tunis, Valencia
- **12th consecutive year Great Place To Work**



With dedication to deliver and a passion for technology

A lot of applications make use of a hexagonal pattern. Why?

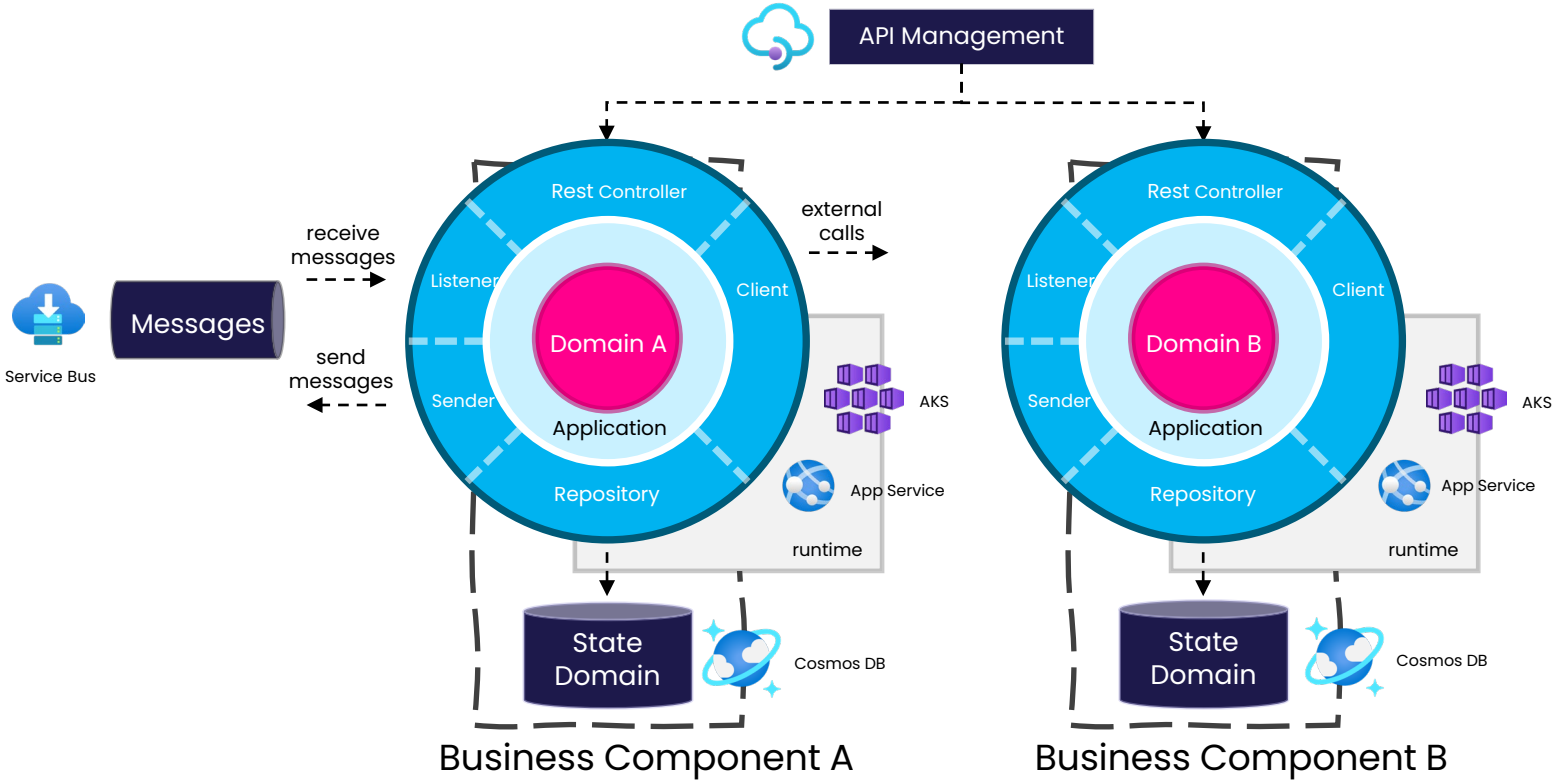


The **amount** of **external ressources** keep growing

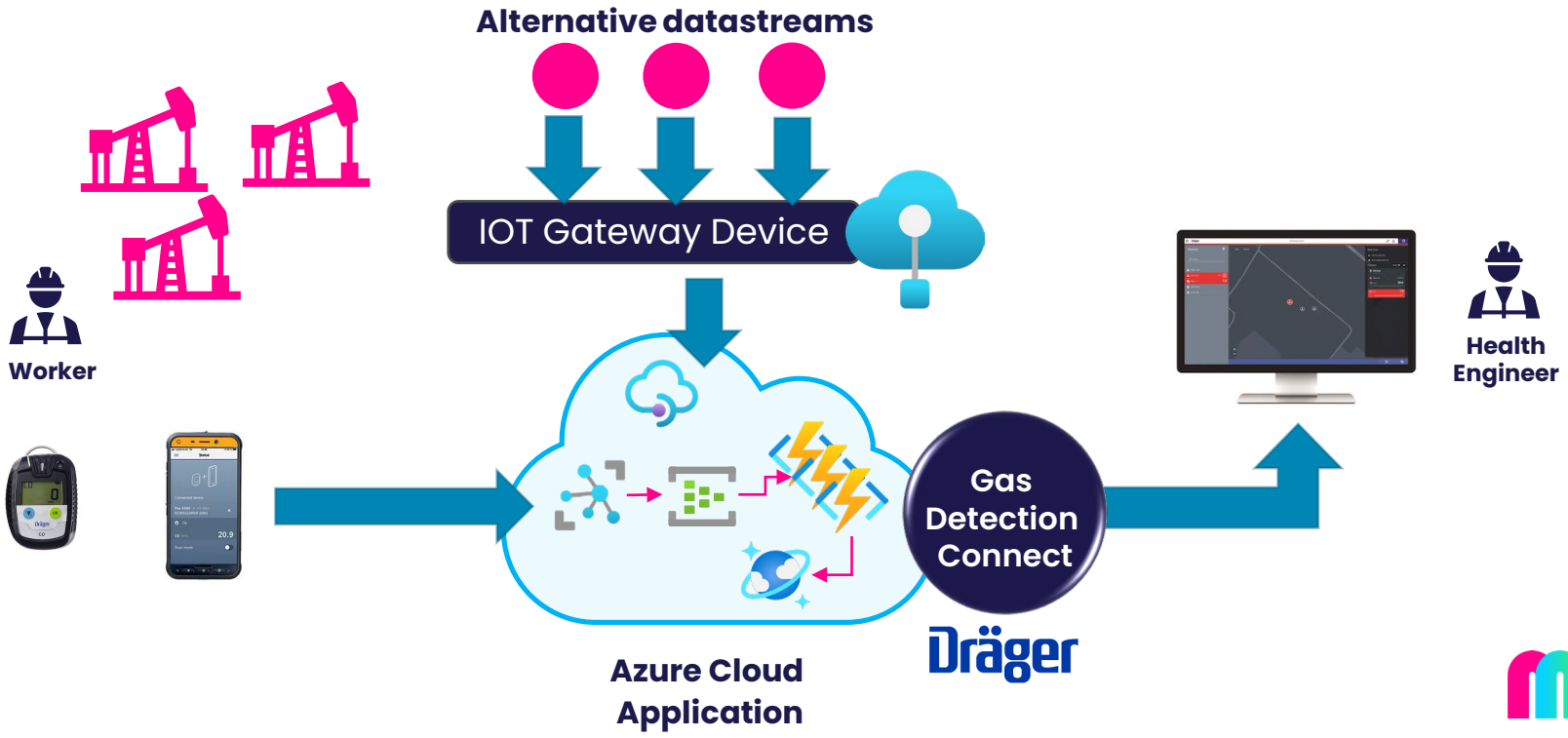
An **hexagonal architcecture** type support this **very well**

A very **domain orientated** approach

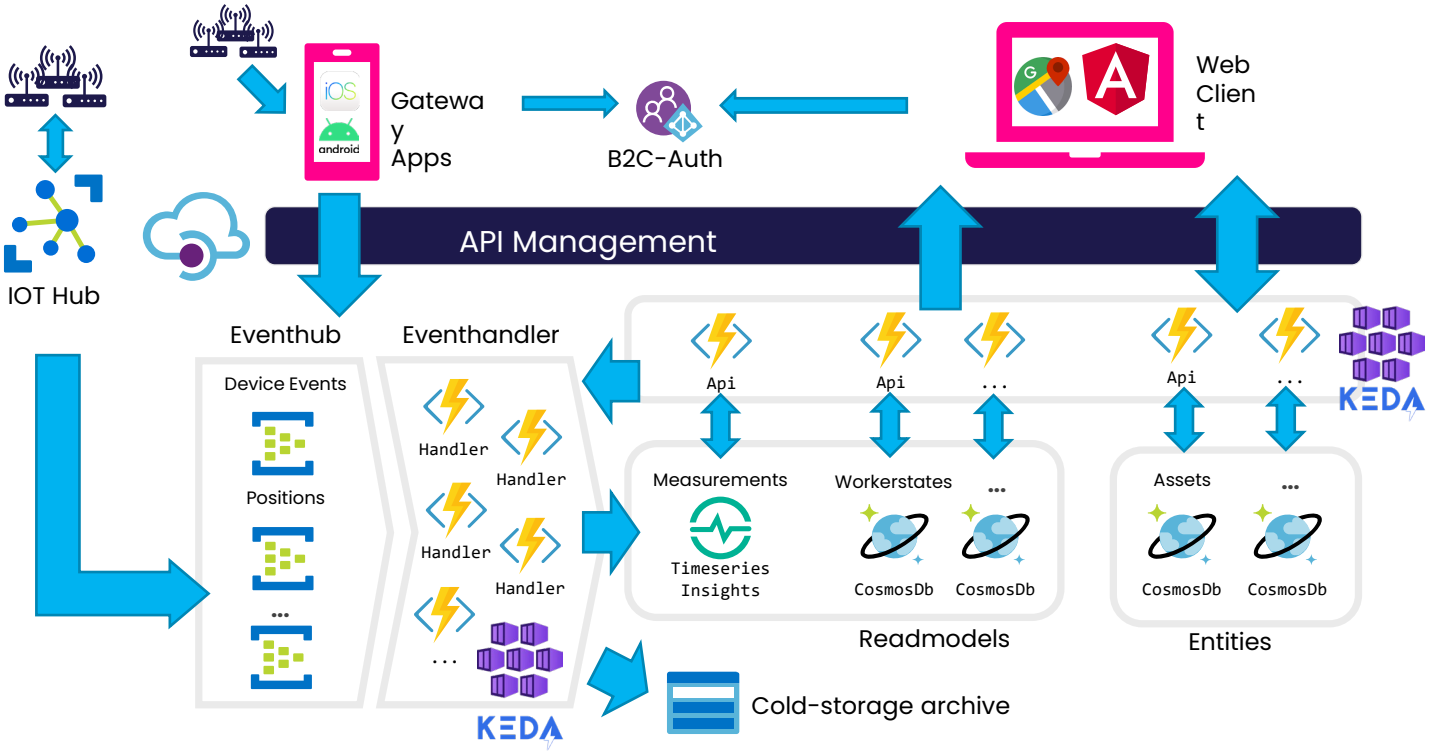
Hexagonal patterns work well with classic microservices



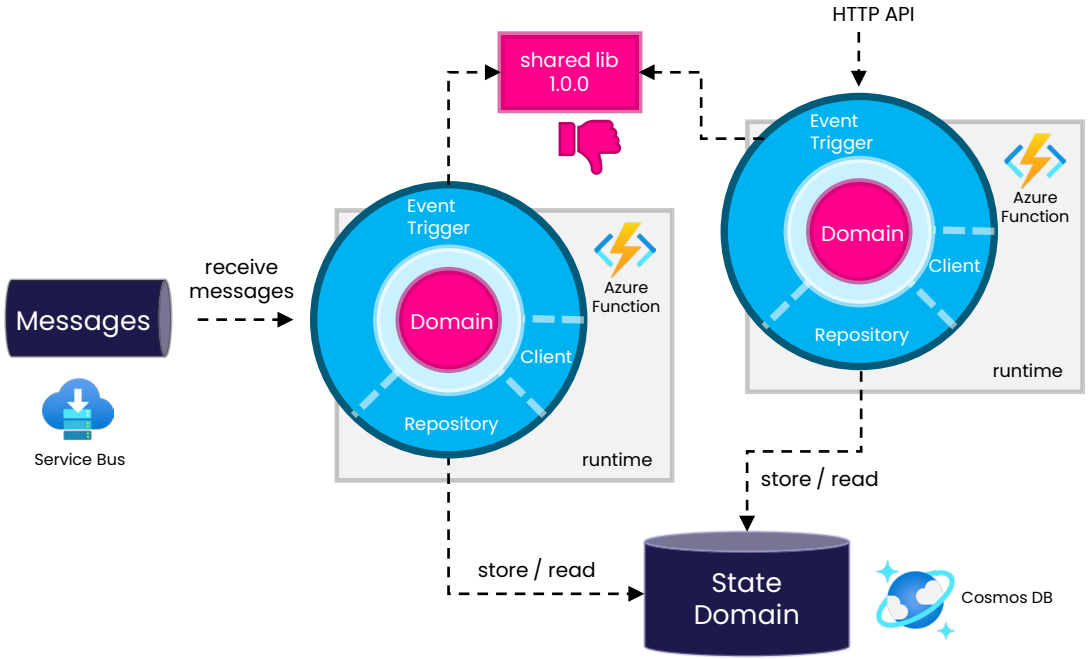
Current customer example based on serverless



Early solution draft based on Azure Functions



Using a Domain driven project setup in Azure Functions

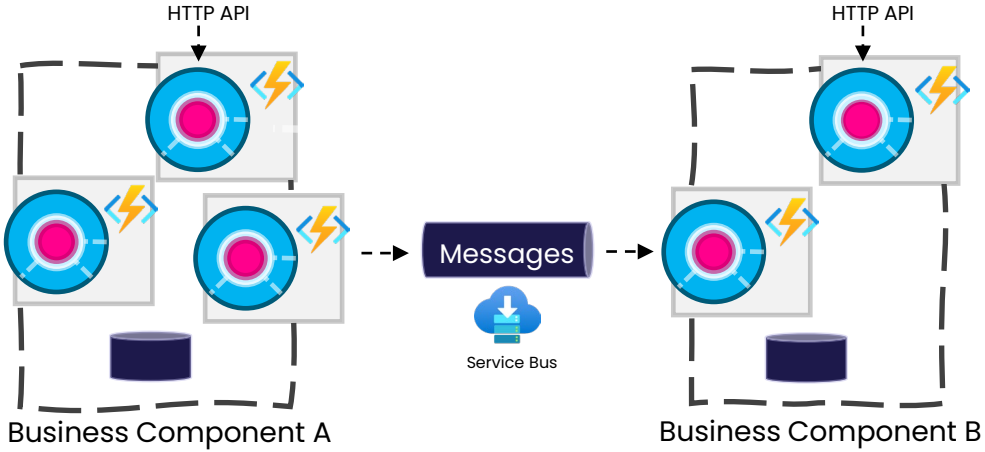


Technical motivation for an system cut and not a business perpective

A **shared versioned model lib** is even for microservices an **anti-pattern**

2 domain cores leading to **code duplications** and more **dependenies**

Use common microservice rules for virtual components

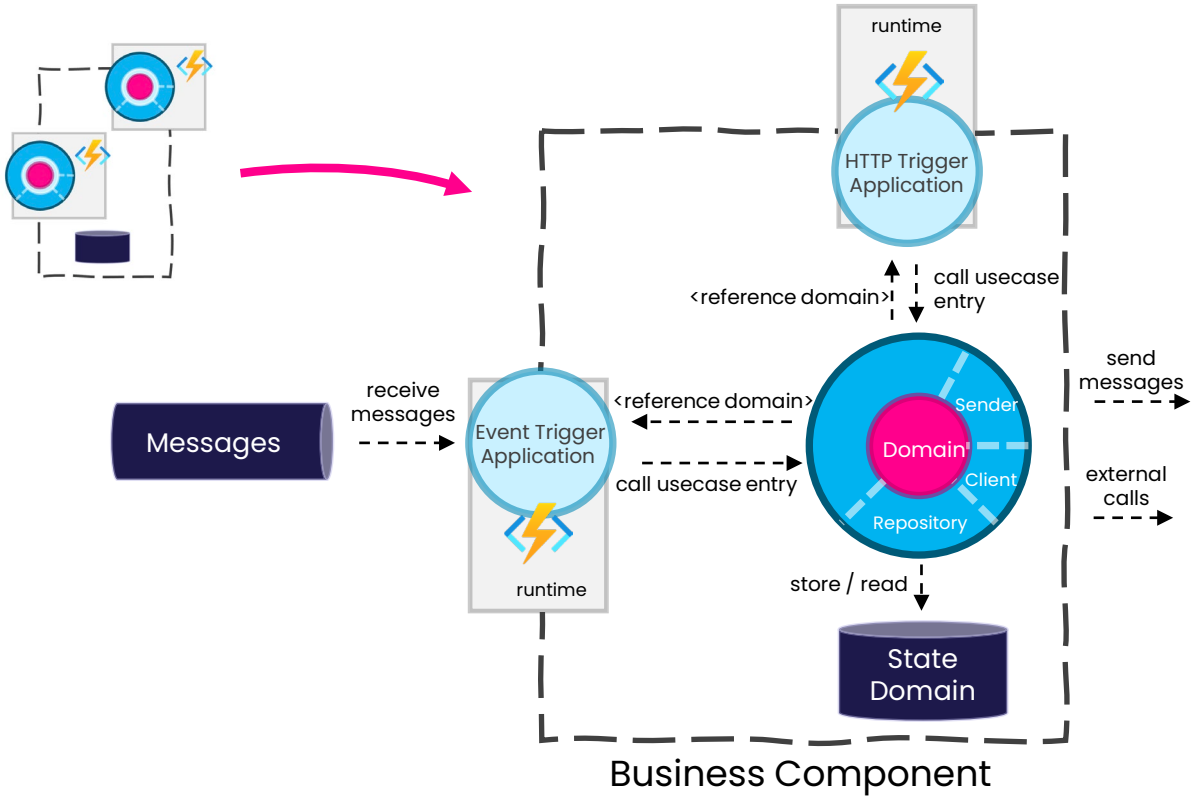


Only one datastore per virtual component

No cross componen t data access

Only **async communicatio n** between components

Design microservices with event triggered Applications



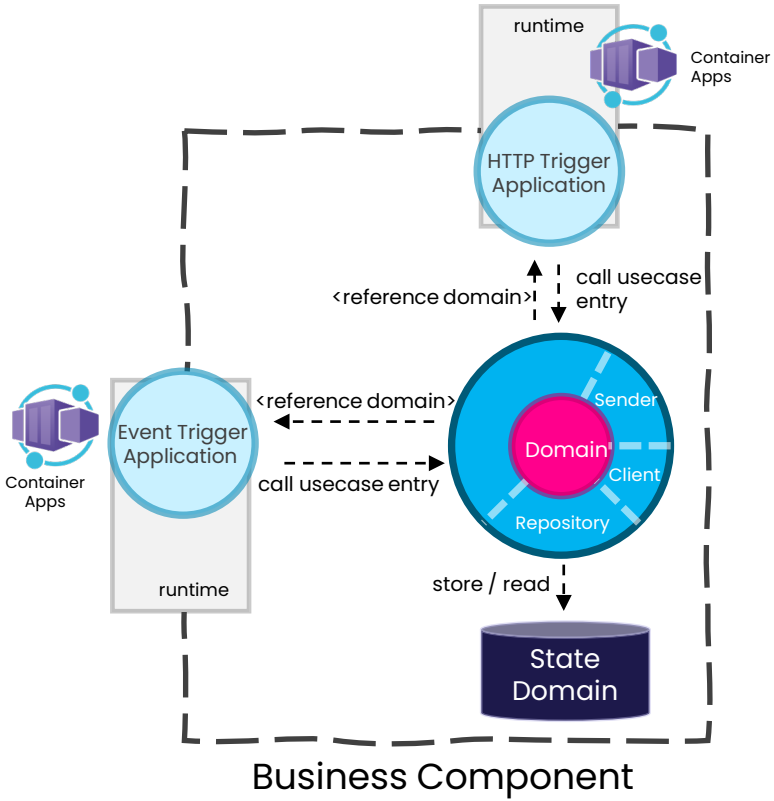
Build a **single domain core** for every business component as library

Split Domain core from **Applicatio n Layers**

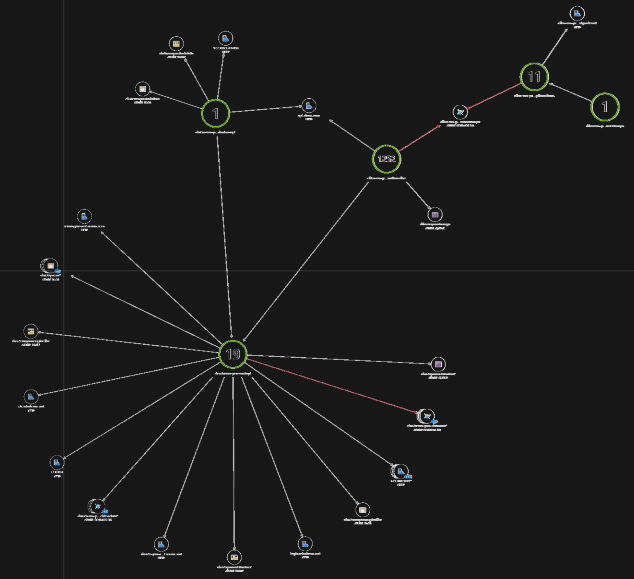
The Applicatio n Layer is **just an entrypoint**

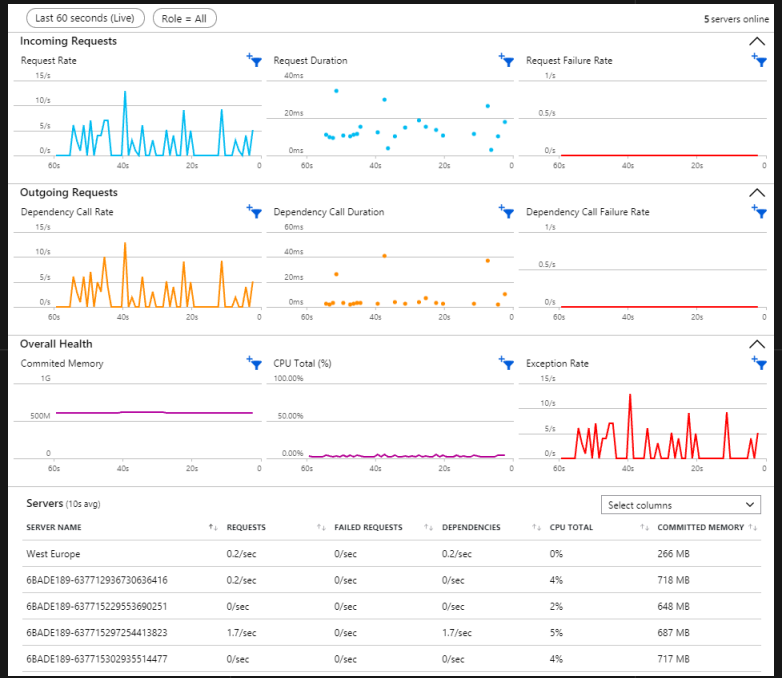
Scaling is still optimized **per Trigger Event**

It works very well with other serverless runtimes



Observability





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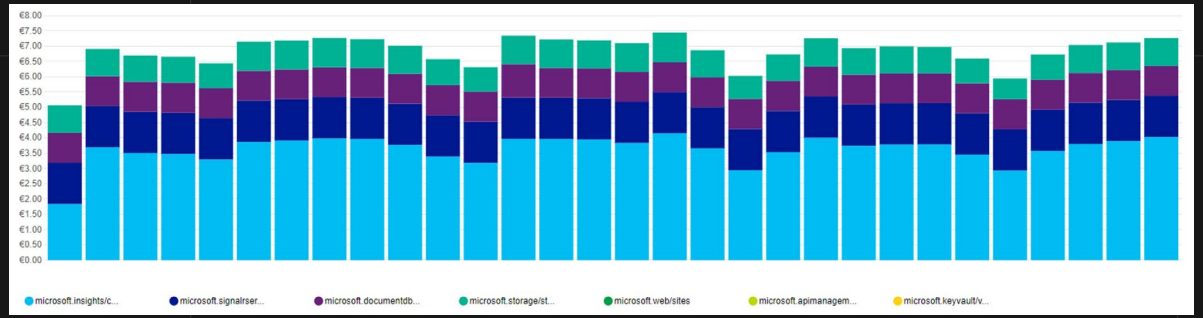
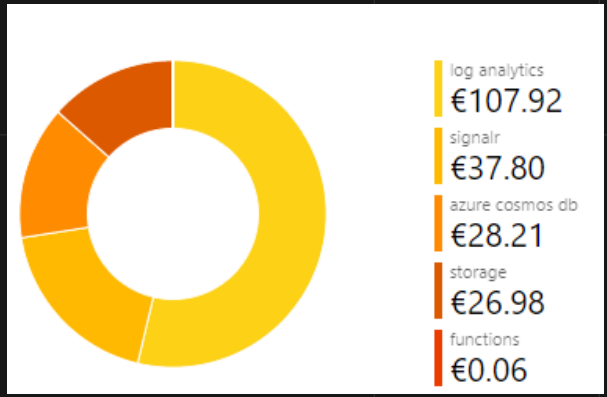
Cost management in serverless





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